

## PATENT COOPERATION TREATY

## PCT

RESPONSE DUE:

DRAFTED 3-7-06  
ABSTRACT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 16275W001	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/US05/20784	International filing date (day/month/year) 13 June 2005 (13.06.2005)	(Earliest) Priority Date (day/month/year) 13 June 2004 (13.06.2004)
Applicant PETER K. TRZYNA		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 3 sheets.

It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report
  - a. With regard to the language, the international search was carried out on the basis of:
    - the international application in the language in which it was filed
    - a translation of the international application into \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b))
  - b.  With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.
2.  Certain claims were found unsearchable (see Box No. II)
3.  Unity of invention is lacking (see Box No. III)
4. With regard to the title,
  - the text is approved as submitted by the applicant
  - the text has been established by this Authority to read as follows:
5. With regard to the abstract,
  - the text is approved as submitted by the applicant
  - the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority
6. With regard to the drawings,
  - a. the figure of the drawings to be published with the abstract is Figure No. 1
    - as suggested by the applicant
    - as selected by this Authority, because the applicant failed to suggest a figure
    - as selected by this Authority, because this figure better characterizes the invention
  - b.  none of the figures is to be published with the abstract

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US05/20784

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : G06F 17/60

USCL : 705/36

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

USCL : 705/36, 37, 38

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

Searched GoogleScholar for "hedge black scholes trigger option trigger floor ceiling"

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	S. Agius et al.; "Building a Credit Risk Valuation Framework for Loan Instruments"; Algo Research Quarterly, VOL. 3, NO.3, December 2000.	1-45
A	Tutorial, "Interest Rate Caps and Floors"; <a href="http://web.archive.org/web/20031227073926/http://www.fincad.com/support/developerFunc/mathref/RATECAP.htm">http://web.archive.org/web/20031227073926/http://www.fincad.com/support/developerFunc/mathref/RATECAP.htm</a> ; December 27, 2003.	1-45
A	Kenneth R. French; "Pricing Financial Futures Contracts: An Introduction," Financial Markets and Portfolio Management (June 1998).	1-45
A	US 2002/0194115 A (NORDLICHT et al.) 19 December 2002 (19.12.2002), see the entire document.	1-45
A	US 2003/0083978 A1 (BROUWER) 01 May 2003 (01.05.2003), see figure 5.	1-45
A	US 2004/0030635 A1 (MARIGLIANO) 12 February 2004 (12.04.2004), see the figures.	1-45

 Further documents are listed in the continuation of Box C.  See patent family annex.

## \* Special categories of cited documents:

- "A" document defining the state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed
- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the state of the art or to disclose an inventive step involved
- "X" document of particular relevance, the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance, the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search

27 October 2005 (27.10.2005)

Date of mailing of the international search report

07 FEB 2006

Name and mailing address of the ISA/US  
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**INTERNATIONAL SEARCH REPORT**

International application No.

PCT/US05/20784

**Box No. IV Text of the abstract (Continuation of item 5 of the first sheet)**

The technical features mentioned in the abstract do not include a reference sign between parentheses (PCT Rule 8.1(d)).  
Therefore, the Authority has prepared a new abstract.

**New Abstract**

A computer-aided method for carrying out an option on a loan (134), for example a residential mortgage loan (134), the method including the steps of: receiving information into a memory, the specifications defining the option (200, 210, 220) on the loan, the specifications including a trigger for executing the option, the specifications such as an interest rate; evaluating the trigger with a computer accessing further data; and if the trigger is detected, signaling execution of the option. The option can be, for example, an interest rate floor, ceiling, or both. Computer cooperation can facilitate closing of the loan and downstream processing (128), if so desired.